Remarks.

The Examiner's comments and objections and the cited references have been carefully considered by the Applicant.

In response to the objection to claim 16, such claim has been deleted without prejudice. No new issues such as to require further consideration have been introduced.

As regards the rejections under 35 U.S.C. § 102 of main claims 1, 14 and 23 in view of the anticipation of their subject-matter by Shirn et al, the following is submitted.

Shirn et al appear to disclose a mirror surface for automotive vehicles made of a Nichrome V sputtered material that has a thickness of 300-400 Ang. (30-40 nm) that would be able to provide, under a battery voltage of 12 V a power of approx. 20-35 W (column 1, lines 53-59).

The sputtered surface appears to be either rectangular (Figures 2 and 4) or round (Figure 3).

The deposition of Nichrome is disclosed to be either:

- 1) a continuous deposited film 12 (Figure 2-column 2, last two lines); or
- 2) a meandered strip of aluminum 21 deposited on the glass in which the adjacent length are separated by lines (Figures 3-4 and column 4, lines 48-64.

Shirn et al **is completely silent on the currents and reflective coefficient achieved.**

Thus, there is **no explicit disclosure** in Shirn et al as to a I) *current of 3.5 A* or lower as claimed in claims 1, 14 and 23 and neither there is **any explicit disclosure** of a II) *reflective coefficient of at least 40% and preferably of at least 42%*, as set forth in claims 14 and 23.

It is further submitted that Shirn et al only appear to disclose a III) *single layer deposition film*, as claimed in claims 1 and 14 in the embodiment of Figure 2, while in Figures 3 and

4 disclose only adjacent strips that appear at the most as plural adjacent layers separated by non deposited glass surface areas (see 1) and 2) above).

"Rejection for anticipation or lack of novelty requires, as the first step in the inquiry, that all the elements of the claimed invention be described in a single reference." In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990), citing ***Richardson v. Suzuki*** *Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).*

However, the examiner's statement of rejection with respect to Shirn et al fails to address the limitations I) and II) set forth above.

Therefore, Shirn et al cannot anticipate claims 1, 14 and 23:

On the other hand, the Examiner does not point to any facts or evidence establishing that that persons of ordinary skill would recognize the presence in Shirn et al of the limitations I) and II).

" A reference which does not explicitly disclose a particular element of a claim may still be considered anticipatory if the reference inherently discloses that element. In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999).

However, to establish that a particular element is inherently disclosed by a reference, the examiner must establish that the descriptive matter missing from the reference is necessarily present in the reference's disclosure, and that persons of ordinary skill would recognize the presence of that element. Id. at 745, 49 USPQ2d at 1950-51, citing Continental".

It is further submitted in this respect that, in view of the overall disclosure of Shirn et al, in fact, The skilled person **cannot and would not recognize the inherent disclosure** of the limitations

I) and II).

It is known that aluminum and nichrome have resitivities, ρ (ohm · cm), of 2,6 (2.7) · 10^{-6} and
112 (110)· 10^{-6}, respectively.

It is also known that

$R_{\square} = \rho / d_m$ **(ohm)** (1)

$$W = V \cdot I = V.\ V / R_S \quad (W) \qquad (2)$$

And

$$R_S = R_{\square} . F ,$$

where d_m is the thickness of the layer (30-40 nm), **F** is the shape coefficient and $R_{\square}$ is the sheet resistance.

It is clear that with the above data, for the surfaces made of aluminum the current obtainable for 12 V and 20-35 W is always well above 3.5 A.

For the Nichrome surface of Figure 2 , $R_{\square}$ appears to be very high, about 37.3 – 28.0 ohm (for 30-40nm of thickness).
Moreover, for the rectangular, apparently single layer film, mirror shown in Figure 2 the shape coefficient F (ratio calculated with the distance between electrodes and the electrode length) appears to be about 0.6-0.8.

It ensues that Shim et al clearly fail to provide inherent information to the person skilled in the art that would unambiguously meet the limitations of current and voltage set forth in claims 1, 14 and 23.

Calculations yield, for 12V and Nichrome layers of 30-40nm, either shape factors F in the range of 0.016 that are impossible for car mirrors with Nichrome layers, or very low

currents (tenths of ampere), which the skilled person would unambiguously exclude as being realistic and able to generate a Joule heating effect adapted for car mirrors.

"Inherency cannot be established by probabilities or possibilities, and the fact that a specific result might occur from a certain set of circumstances is insufficient to establish inherency. Robertson, 169 F.3d at 745, 49 USPQ2d at 1951, citing Continental Can, 948 F.2d at 1269, 20 U.S.P.Q.2d at 1749, citing In re Oelrich, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981)."

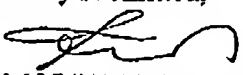
In view of the objective facts and arguments set forth above, it appears that the rejections under 35 U.S.C. § 102 do not apply.

Applicant therefore submits that the subject matter of the presently pending claims is new and patentable over Shim et al.

Reconsideration of the application and allowance of the claims as hereby amended is respectfully requested.

While it is believed that the amended claims properly and clearly define the present invention, applicant would be open to any suggestion or amendment the Examiner may have or propose concerning different claim phraseology which, in the Examiner's opinion, more accurately defines the present invention.

Respectfully submitted,



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